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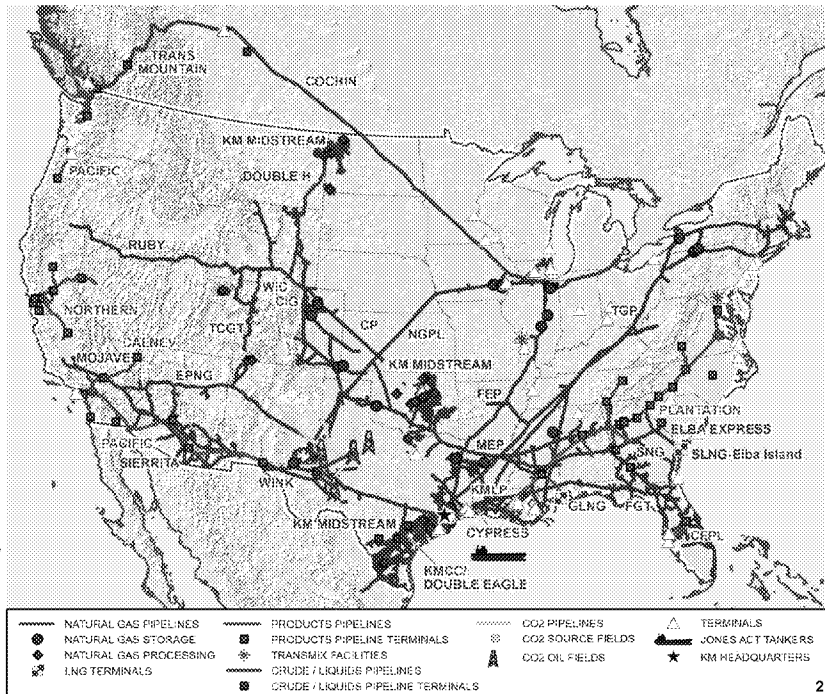
*February 13, 2018*  
*Meeting with EPA*

# Unparalleled Asset Footprint

*One of the Largest Energy Infrastructure Companies in North America*



- ♦ Largest natural gas transmission network in North America
  - Own or operate ~70,000 miles of natural gas pipeline
  - Connected to every important natural gas resource play in the U.S.
- ♦ Largest independent transporter of petroleum products in North America
  - Transport ~2.1 MMBbl/d
- ♦ Largest transporter of CO<sub>2</sub> in North America
  - Transport ~1.3 Bcf/d of CO<sub>2</sub>
- ♦ Largest independent terminal operator in North America
  - Own or operate ~155 terminals
  - ~152 MMBbls liquids capacity
  - Handle ~53 MMtons of dry bulk products
  - Own 16 Jones Act vessels
- ♦ Only Oilsands pipeline serving the West Coast
  - Transports ~300 MBbl/d to Vancouver / Washington State; planned expansion takes capacity to 890 MBbl/d



## **Kinder Morgan Appreciates the Work EPA is Doing**

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- **KM appreciates the actions EPA has taken to date**
  - NSR guidance
  - Once in Always In NESHAP
  - Permit Streamlining
  - OAQPS working with PRCI on AERMOD Project
  
- **KM supports and would like to assist EPA in making workable adjustments to 40 CFR 60 Subpart OOOOa**

# U.S. EPA – Oil & Gas Emission Standards

## NSPS 0000a Technical Concerns

### ▪ Delay of Repair

- Requiring repairs and replacement of leaking components after unscheduled and emergency vent blowdowns and compressor station shutdowns is not feasible in many cases for safe and reliable pipeline operations
- **KM Commented on NODA – Supporting INGAA Language Fix**
- § 60.5397a(h)(2) If the repair or replacement is technically infeasible, would require a vent blowdown, a compressor station shutdown, a well shutdown or well shut-in, or would be unsafe to repair during operation of the unit, the repair or replacement must be completed during the next scheduled compressor station shutdown for maintenance, well shutdown, well shut-in, ~~after an unscheduled, planned or~~ emergency vent blowdown or within 2 years, ~~whichever is earlier~~.

Delay of repair will be allowed beyond the next scheduled compressor station shutdown for maintenance if (a) replacement parts cannot be acquired before the next scheduled shutdown for maintenance or (b) the delay is attributable to other good cause that makes a sooner repair impracticable and/or would lead to excess emissions. The operator must document: the location and nature of the leak, the date the leak was added to the delay of repair list, the basis for delaying the repair, the date replacement parts were ordered, the vendor providing the parts, and the anticipated delivery date. Replacement parts must be promptly ordered after determining it is necessary to delay the repair and the repair must be completed within 30 business days of receipt of the replacement parts, during the next scheduled maintenance shutdown after the parts are received if the repair requires a shutdown, or within 30 business days after the cause of delay ceases to exist.

# U.S. EPA – Oil & Gas Emission Standards

## *NSPS 0000a Technical Concerns, con't.*

- **LDAR Requirement Should be Annual for Compressor Stations**
  - Consistent with GHGRP Subpart W requirements
  - Data indicates increased frequency of LDAR inspections does not significantly decrease overall methane emissions
  
- **Third Party Ancillary Equipment**
  - KM Commented on NODA – Supporting GPA
  - EPA should amend Section 60.5365a(i) to read as follows:
 

Except as provided in § 60.5365a(i)(2), the collection of fugitive emissions components owned, operated, or leased by the producer at a well site, as defined in § 60.5430a, to the point of custody transfer, is an affected facility.
  
  - Kinder Morgan notes the third-party ancillary equipment issue is present at compressor stations in addition to well sites. Therefore, Kinder Morgan recommends EPA amends Section 60.5365a(j) to read as follows:
 

The collection of fugitive emissions components owned, operated, or leased by the compressor station operator at a compressor station as defined in § 60.5430a, after the point of custody transfer, is an affected facility.

# U.S. EPA – Oil & Gas Emission Standards

## NSPS 0000a Technical Concerns, con't.

### ■ Modification to a Compressor Station Definition

- \* Causes confusion when work is done on compressors. Suggested Language fix:

§ 60.5365a(j) The collection of fugitive emissions components at a compressor station, as defined in § 60.5430a, is an affected facility. For purposes of § 60.5397a, a "modification" to a compressor station occurs when:

(1) An additional compressor is installed at a compressor station; or (2) One or more compressors at a compressor station is replaced by one or more compressors of greater total horsepower than the driver(s) of the compressor(s) being replaced. When one or more compressors driver is replaced by one or more compressor-s driver of an equal or smaller total horsepower than the compressor(s) driver being replaced, installation of the replacement compressor(s) driver(s) does not trigger a modification of the compressor station for purposes of § 60.5397a.

### ■ Conflicting resurvey timeframe requirements

- \* Conflicting resurvey timeframe requirements in § 60.5397a(h)3 and § 60.5397a(h)3i suggested language:

§ 60.5397a(h)3 Each repaired or replaced fugitive emissions component must be resurveyed as soon as practicable, but no later than 30 days after being repaired, to ensure that there are no fugitive emissions.

(i) For repairs that cannot be made during the monitoring survey when the fugitive emissions are initially found, the operator may resurvey the repaired fugitive emissions components using either Method 21 or optical gas imaging ~~within 30 days of finding such fugitive emissions~~

# U.S. EPA – Greenhouse Gas Reporting Program Subpart W

## ▪ Streamlining of GHGRP Subpart W and OOOOa Monitoring Events

- The latest GHGRP Subpart W rule revisions of November 30, 2016 were intended to synchronize & streamline the monitoring for OOOOa and GHGRP Subpart W
  - Further complicated the Subpart W reporting for OOOOa sources due to the quarterly monitoring frequency of OOOOa.
- If OOOOa monitoring frequency is changed from quarterly to annual:
  - Benefits of LDAR will still be retained with reduced burden and cost for operators
  - A single annual monitoring event will meet the OOOOa and Subpart W requirements simultaneously
  - The original goal of streamlining & synchronizing OOOOa and Subpart W monitoring can be fully realized
  - Minimal and possibly no rule revisions to Subpart W would be needed to accomplish this streamlining

## ▪ Update Methane Emission Factors Using Current Data

- GHGRP Subpart W Data has been reported by Operators since 2011
- Subpart W Reporting is time and resource intensive
- Pipeline Research Council International (PRCI) Emission Factor analysis using annual Subpart W monitoring data collected under the GHGRP since 2011
  - Results show compressor emission factors are significantly lower than factors currently being used in GHG Inventory

# National Ambient Air Quality Standards (NAAQS)

## ■ AERMOD and One-Hour NAAQS Issues (NO<sub>2</sub>)

- The current model is not capable of demonstrating compliance with 1 hr standard. The model over predicts for low stacks.
- EPA should issue guidance or an advisory to states and regulated community acknowledging the issue and not require one-hour modeling until the model is fixed.
- Continue to support existing coordination between PRCI, INGAA and EPA developing fixes.

## ■ NAAQS Reform presented in 10/25/2017 response to EO 13783

- KM supports EPA reform efforts on NAAQS.
- Concerns with the timing of implementations of NAAQS within the required 5 year review period. Within 5 year review period, often technology does not exist to comply with lower standard.
- The frequency of NAAQS revisions result in overlapping requirements to be implemented in a short time frame, resulting in uncertainty for planned and permitted facilities.
- Frequent revisions of standards result in a backlog of SIPs to be reviewed and delays SIP approval by EPA.



## EPA Regulations should Adhere to Plain Writing Act

- **EPA should apply plain language requirements to air quality regulations for guidance**
- **KM takes compliance very seriously**
  - When regulations are written in an overly complicated fashion, operators are vulnerable to enforcement due to interpretation nuances even when they are committed to doing the right thing
  - Making regulations difficult to understand is counterproductive
- **Examples**
  - 40 CFR Part 63 Subpart ZZZZ compliance requirements for reciprocating engines differ dependent on specific makes/models/dates of engines
  - EPA and operators have had to develop several documents to guide compliance. The guidance itself is difficult to follow
  - KM recommends streamlining rules to the extent possible, especially in cases where the complexity outweighs any environmental benefit
  - Definitions differ between different CAA regulations (i.e., NSPS, NESHAP, GHGRP)

## Startup, Shutdown and Malfunction Emissions

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- **Current Status?**
  
- **Work practices during SSM events are suitable. In line with NSPS and NESHAPs for combustion sources.**
  - Recommend EPA document the emission standard compliance limitations associated with the original rulemaking for NSPS and NESHAPs.

## **EPA Topics and Next Steps**

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- **Does EPA have other topics?**
- **Next Steps?**